



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2022-0015; Project Identifier AD-2021-00832-R; Amendment 39-22252; AD 2022-24-12]

RIN 2120-AA64

Airworthiness Directives; Airbus Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is superseding Airworthiness Directive (AD) 2020-23-05 for certain Airbus Helicopters Model EC225LP helicopters. AD 2020-23-05 required inspecting the control rod attachment yokes (yokes) of certain main rotor (M/R) rotating swashplates (swashplates), establishing a life limit, performing a one-time inspection of stripped yokes, and applicable corrective actions. Since the FAA issued AD 2020-23-05, the FAA has determined that certain swashplates are not susceptible to the unsafe condition, repetitive inspections for certain swashplates are necessary, and the criteria for when to perform a dye penetrant inspection needed to be revised. This AD retains some of the requirements of AD 2020-23-05 and also requires compliance with a revised life limit; performing a repetitive visual inspection of the yokes on certain swashplates; and depending on the inspection results, removing the affected swashplates from service, performing a dye penetrant inspection of the yoke, and additional corrective actions. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES:

AD Docket: You may examine the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2022-0015; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, the European Union Aviation Safety Agency (EASA) AD, any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

Material Incorporated by Reference:

- For service information identified in this final rule, contact Airbus Helicopters, 2701 North Forum Drive, Grand Prairie, TX 75052; phone: (972) 641-0000 or (800) 232-0323; fax (972) 641-3775; or at airbus.com/helicopters/technical-services/support.html.
- You may view this service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy, Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110. It is also available at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2022-0015.

FOR FURTHER INFORMATION CONTACT: Hal Jensen, Aerospace Engineer, Operational Safety Branch, Compliance & Airworthiness Division, FAA, 950 L'Enfant Plaza N SW, Washington, DC 20024; phone: (202) 267-9167; email: hal.jensen@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to supersede AD 2020-23-05, Amendment 39-21321 (85 FR 73604, November 19, 2020) (AD 2020-23-05). AD 2020-23-05 applied to Airbus Helicopters Model EC225LP helicopters with a swashplate part number (P/N) 332A31-3074-00 or P/N 332A31-3074-01 installed. AD 2020-23-05 required inspecting the yokes of certain swashplates, establishing a life limit, performing a one-time inspection of stripped yokes, and applicable corrective actions. The FAA issued AD 2020-23-05 to detect a crack in a swashplate yoke, which could result in failure of the yoke, loss of M/R control, and subsequent loss of control of the helicopter. The NPRM published in the *Federal Register* on January 26, 2022 (87 FR 3943). The NPRM was prompted by determinations following the issuance of AD 2020-23-05 and EASA AD 2019-0074, dated March 28, 2019 (EASA AD 2019-0074), and issued by EASA, which is the Technical Agent for the Member States of the European Union. EASA AD 2019-0074 stated that Airbus Helicopters established a life limit (also called a service life limit) of 12 years for the swashplate and added a reporting requirement if there is a crack or corrosion in a yoke. EASA further advised that additional analysis determined that it is necessary to introduce a new life limit for affected swashplates.

You may examine EASA AD 2019-0074 in the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA 2022-0015.

In the NPRM, the FAA proposed to continue to require all of the requirements of AD 2020-23-05 and also proposed to require a revised compliance time for the initial visual inspection of the yokes on certain swashplates and clarify that dye penetrant inspection of the yoke is required before further flight if no cracks are detected during the visual inspection.

The FAA issued a supplemental notice of proposed rulemaking (SNPRM) to amend 14 CFR part 39 to supersede AD 2020-23-05. The SNPRM published in the *Federal Register* on July 29, 2022 (87 FR 45715). The SNPRM was prompted by EASA

AD 2019-0074R1, dated March 8, 2022 (EASA AD 2019-0074R1), which revised EASA AD 2019-0074.

In the SNPRM, the FAA proposed to continue to require some of the requirements of AD 2020-23-05 and also proposed to require compliance with a revised life limit; performing a repetitive visual inspection of the yokes on swashplates that have accumulated 7 or more years, but less than 13 years, since the date of manufacture; and if a crack is detected, removing the swashplate from service. If no cracks are detected as a result of a visual inspection but a scratch or surface degradation is detected, the SNPRM proposed to require performing a dye penetrant inspection of the yoke. If a crack is detected during the dye penetrant inspection, the SNPRM proposed to require removing the swashplate from service.

Since the NPRM was issued, the FAA determined that swashplates that have accumulated less than 7 years since the date of manufacture are not susceptible to the unsafe condition. The FAA also determined that repetitive inspections for swashplates that have accumulated 7 or more years, but less than 13 years, since the date of manufacture are necessary and the criteria for when to perform a dye penetrant inspection needed to be revised. In light of this, the FAA revised the SNPRM accordingly.

In the SNPRM, the FAA also corrected the description of what prompted AD 2020-23-05, updated the related service information that was proposed for incorporation by reference to the current revision, and updated the estimated number of work-hours for inspecting the yokes in the Costs of Compliance section.

Discussion of Final Airworthiness Directive

Comments

The FAA received no comments on the SNPRM or on the determination of the costs.

Conclusion

These helicopters have been approved by EASA and are approved for operation in the United States. Pursuant to the FAA's bilateral agreement with the European Union, EASA has notified the FAA about the unsafe condition described in its AD. The FAA reviewed the relevant data and determined that air safety requires adopting this AD as proposed. Accordingly, the FAA is issuing this AD to address the unsafe condition on these helicopters. Except for minor editorial changes, this AD is adopted as proposed in the SNPRM.

Related Service Information Under 1 CFR Part 51

The FAA reviewed one document that co-publishes two Airbus Helicopters Emergency Alert Service Bulletin (EASB) identification numbers: EASB No. 05A051 for Model EC225LP helicopters (EASB 05A051 Rev 4), and EASB No. 05A046 for non-FAA type-certificated Model EC725AP helicopters (EASB 05A046 Rev 4), both Revision 4, and both dated February 28, 2022. EASB 05A051 Rev 4 is incorporated by reference in this AD; EASB 05A046 Rev 4 is not.

This service information specifies inspections for swashplate P/N 332A31-3074-00 and P/N 332A31-3074-01. This service information specifies procedures for a repetitive inspection of the yokes for a crack and a one-time inspection of the stripped yokes for corrosion and a crack. If in doubt about whether there is a crack, this service information specifies performing a nondestructive inspection.

Additionally, this service information specifies touching up the swashplate with varnish if there is corrosion, removing any damage within allowable limits, and refinishing the yokes. If there is a crack in a yoke, this service information specifies replacing the swashplate. This service information also specifies a life limit of 13 years since the date of manufacture for the swashplates and reporting requirements if a crack or corrosion is discovered. EASB 05A051 Rev 4 also updates the list of serial numbers and

manufacture dates of the swashplates.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Differences Between this AD and EASA AD 2019-0074R1 or the Service information

EASB 05A051 Rev 4 specifies performing a non-destructive inspection if in doubt about whether there is a crack in a yoke. This AD requires a visual inspection and if no cracks are detected, visually inspecting for a scratch and surface degradation. If a scratch or surface degradation is detected, this AD requires a non-destructive inspection (dye penetrant inspection). EASB 05A051 Rev 4 also specifies sending the swashplate back to Airbus Helicopters if cracks are found, whereas this AD does not require sending any affected parts back to Airbus Helicopters.

EASA AD 2019-0074R1 requires reporting inspection results, whereas this AD does not require reporting inspection results.

Costs of Compliance

The FAA estimates that this AD affects 28 helicopters of U.S. Registry. Labor rates are estimated at \$85 per work-hour. Based on these numbers, the FAA estimates the following costs to comply with this AD.

Estimated Costs for Required Actions

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Determination of the manufacture date of the swashplate	0.5 work-hour X \$85 per hour = \$43	\$0	\$43	\$1,204
Inspecting the yokes	0.5 work-hour X \$85 per hour = \$43 per inspection cycle	\$0	\$43 per inspection cycle	\$1,204 per inspection cycle

Removing grease, stripping the yokes, and inspecting the stripped yokes	8 work-hours X \$85 per hour = \$680	\$0	\$680	\$19,040
Creating a life limit record	1 work-hour X \$85 per hour = \$85	\$0	\$85	\$2,380

The FAA estimates the following costs to do any necessary on-condition actions that are required based on the results of any required actions. The FAA has no way of determining the number of aircraft that might need these on-condition actions:

Estimated Costs of On-Condition Actions

Action	Labor cost	Parts cost	Cost per product
Removing any corrosion or repairing damage within the allowable limit	3 work-hours X \$85 per hour = \$255	\$0	\$255
Replacing the swashplate	6 work-hours X \$85 per hour = \$510	\$85,661	\$86,171
Dye-penetrant inspection	6 work-hours X \$85 per hour = \$510	\$50	\$560

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, Section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority

because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Will not affect intrastate aviation in Alaska, and
- (3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

- 2. The FAA amends § 39.13 by:

- a. Removing Airworthiness Directive 2020-23-05, Amendment 39-21321 (85 FR 73604, November 19, 2020); and

- b. Adding the following new airworthiness directive:

2022-24-12 Airbus Helicopters: Amendment 39-22252; Docket No. FAA-2022-0015; Project Identifier AD-2021-00832-R.

(a) Effective Date

This airworthiness directive (AD) is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

This AD replaces AD 2020-23-05, Amendment 39-21321 (85 FR 73604, November 19, 2020).

(c) Applicability

This AD applies to Airbus Helicopters Model EC225LP helicopters, certificated in any category, with a main rotor (M/R) rotating swashplate (swashplate) part number (P/N) 332A31-3074-00 or P/N 332A31-3074-01 installed.

(d) Subject

Joint Aircraft Service Component (JASC) Code: 6230, Main Rotor Mast/Swashplate.

(e) Unsafe Condition

This AD was prompted by results of testing, which determined that a crack could develop in a swashplate control rod attachment yoke (yoke), and the notification of a new life limit for certain swashplates. The FAA is issuing this AD to detect and correct a crack in a yoke. The unsafe condition, if not addressed, could result in failure of the yoke, loss of M/R control, and subsequent loss of control of the helicopter.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Required Actions

Before further flight, review Appendix 4.A. of Airbus Helicopters Emergency Alert Service Bulletin (EASB) No. 05A051, Revision 4, dated February 28, 2022 (EASB 05A051 Rev 4) to determine the date of manufacture of the swashplate.

(1) If the swashplate has accumulated 13 or more years since the date of manufacture, remove the swashplate from service.

(2) If the swashplate has accumulated less than 13 years since the date of manufacture, create a component history card or equivalent record indicating a life limit of 13 years since the date of manufacture. Thereafter, continue to record the life limit of the swashplate on its component history card or equivalent record and remove any swashplate from service before accumulating 13 years since the date of manufacture.

(3) For each swashplate that has accumulated 7 or more years, but less than 13 years, since the date of manufacture, within 15 hours time-in-service (TIS) or 7 days, whichever occurs first after the effective date of this AD, and thereafter at intervals not to exceed 15 hours TIS or 7 days, whichever occurs first, until the swashplate accumulates 13 years since the date of manufacture, visually inspect each yoke for a crack, paying particular attention to the areas shown in Details B, C, and D of Figure 1 of EASB 05A051 Rev 4. If there is any crack on the yoke, before further flight, remove the swashplate from service.

(i) If no cracks are visually detected, before further flight, visually inspect for a scratch and surface degradation on the yoke.

(ii) If there is any scratch or surface degradation on the yoke, before further flight, perform a dye penetrant inspection of the yoke for a crack.

(iii) If there is any crack on the yoke, before further flight, remove the swashplate from service.

(4) For each swashplate that has accumulated 7 or more years, but less than 13 years, since the date of manufacture, within 100 hours TIS after the effective date of this AD:

(i) Remove the grease from areas (E), (F), (G), (H), (J), and (K) of each yoke as shown in Details B, C, and D of Figure 1 of EASB 05A051 Rev 4. Using a plastic spatula, strip areas (E), (F), (G), (H), (J), and (K) of each yoke as shown in Details B, C, and D of Figure 1 of EASB 05A051 Rev 4. Do not use a metal tool to strip any area of a yoke.

(ii) Inspect areas (E), (F), (G), (H), (J), and (K) of each yoke as shown in Details B, C, and D of Figure 1 of EASB 05A051 Rev 4 for corrosion, pitting, and loss of material.

(A) If there is any corrosion less than 0.0078 in. (0.2 mm), before further flight, remove the corrosion and apply varnish (Vernelec 43022 or equivalent) to the surface of areas (E), (F), (G), (H), (J), and (K).

(B) If there is any pitting or loss of material of less than 0.0078 in. (0.2 mm), before further flight, remove the damage by sanding with sandpaper 200/400 or 330.

(C) If there is any corrosion, pitting, or loss of material of 0.0078 in. (0.2 mm) or greater, before further flight, remove the swashplate from service.

(iii) Visually inspect each yoke for a crack, paying particular attention to the areas shown in Details B, C, and D of Figure 1 of EASB 05A051 Rev 4.

(A) If there is any crack on the yoke, before further flight, remove the swashplate from service.

(B) If no cracks are visually detected, before further flight, perform the actions as required in paragraphs (g)(3)(i) through (iii) of this AD.

(h) Credit for Previous Actions

If you performed the actions in paragraph (g)(4) of this AD before the effective date of this AD using Airbus Helicopters EASB No. 05A051, Revision 1, dated November 16, 2017; Airbus Helicopters EASB No. 05A051, Revision 2, dated February 26, 2019; or Airbus Helicopters EASB No. 05A051 Revision 3, dated December 7, 2021, you have met the requirements of paragraph (g)(4) of this AD.

(i) Special Flight Permits

Special flight permits are prohibited.

(j) Alternative Methods of Compliance (AMOCs)

(1) The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the International Validation Branch, send it to the attention of the person identified in paragraph (k)(1) of this AD. Information may be emailed to: 9-AVS-AIR-730-AMOC@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(k) Related Information

(1) For more information about this AD, contact Hal Jensen, Aerospace Engineer, Operational Safety Branch, Compliance & Airworthiness Division, FAA, 950 L'Enfant Plaza N SW, Washington, DC 20024; phone: (202) 267-9167; email: hal.jensen@faa.gov.

(2) Airbus Helicopters Emergency Alert Service Bulletin (EASB) No. 05A051, Revision 1, dated November 16, 2017; Airbus Helicopters EASB No. 05A051, Revision 2, dated February 26, 2019; and Airbus Helicopters EASB No. 05A051 Revision 3, dated December 7, 2021, which are not incorporated by reference, contain additional information about the subject of this AD. This service information is available at the contact information specified in paragraphs (l)(3) and (4) of this AD.

(3) The subject of this AD is addressed in European Union Aviation Safety Agency (EASA) AD 2019-0074R1, dated March 8, 2022. You may view the EASA AD at regulations.gov under Docket No. FAA-2022-0015.

(l) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Airbus Helicopters Emergency Alert Service Bulletin No. 05A051, Revision 4, dated February 28, 2022.

Note 1 to paragraph (l)(2)(i): Airbus Helicopters Emergency Alert Service Bulletin No. 05A051, Revision 4, dated February 28, 2022, is co-published as one document along with Airbus Helicopters Emergency Alert Service Bulletin No. 05A046, Revision 4, dated February 28, 2022, which is not incorporated by reference in this AD.

(ii) [Reserved]

(3) For Airbus Helicopters service information identified in this AD, contact Airbus Helicopters, 2701 North Forum Drive, Grand Prairie, TX 75052; phone: (972)

641-0000 or (800) 232-0323; fax (972) 641-3775; or at
airbus.com/helicopters/services/technical-support.html.

(4) You may view this service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email: fr.inspection@nara.gov, or go to:
www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued on November 16, 2022.

Christina Underwood, Acting Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

[FR Doc. 2022-26219 Filed: 12/1/2022 8:45 am; Publication Date: 12/2/2022]